WHAT IS CLAIMED IS:

1. Microfluidic connection, comprising
a carrier element comprising a microfluidic channel fixed between a feeding element and a backplate, the feeding element comprising a channel adapted for feeding a fluid into the microfluidic channel;

wherein the backplate comprises a recess, the recess arranged opposing the feeding element, and

the recess comprises an elastic thrust piece.

2. The microfluidic connection of claim 1, wherein the channel of the feeding element is structured as a macrofluidic channel.

3. The microfluidic connection of claim 1, wherein the channel of the feeding element is structured as a microfluidic channel.

4. The microfluidic connection of claim 1, wherein the microfluidic channel of the carrier element is arranged between a first layer and a second layer of the carrier element.

5. The microfluidic connection of claim 4, wherein at least one of the first and second layer of the carrier element is structured to form a microfluidic channel.

6. The microfluidic connection of claim 1, wherein the carrier element comprises an opening on a first side adopted for feeding a fluid from the feeding element into the microfluidic channel.

7. The microfluidic connection of claim 1, wherein the opening is arranged below the feeding element.

8. The microfluidic connection of claim 6, wherein the feeding element comprises a tube having a macrofluidic channel and a channel

head, the channel head arranged over the opening of the first layer.

9. The microfluidic connection of claim 6, wherein the diameter of the channel head comprises approximately the same value as the diameter of the opening of the first layer.

10. The microfluidic connection of claim 7, wherein the backplate is arranged on a second side of the carrier element at least partly opposing the feeding element.

11. The microfluidic connection of claim 1, further comprising a clamping element for pressing feeding element and backplate tightly together.

12. The microfluidic connection of claim 1, wherein the backplate comprises a screw connection to the feeding element for pressing feeding element and backplate together.

13. The microfluidic connection of claim 1, wherein the backplate comprises a bore with internal thread arranged below a bore hole of the feeding element the bores adopted for holding screws.

14. The microfluidic connection of claim 12, wherein the carrier element comprises a bore hole for the screw connection of the backplate.

15. The microfluidic connection of claim 1, wherein the recess is arranged opposing the opening in the carrier element.

16. The microfluidic connection of claim 1, wherein the elastic thrust piece comprises at least teflon or polyurethane or PEEK or a material with a resiliency property.

17. The microfluidic connection of claim 1, wherein the elastic thrust piece comprises a spring loaded thrust piece arranged in the

recess.

18. The microfluidic connection of claim 1, wherein a volume of the elastic thrust piece volume comprises at least the value of a volume of the recess.

19. The microfluidic connection of claim 1, wherein the backplate comprises steel or tantalum or titan or PEEK.

20. The microfluidic connection of claim 1, wherein the feeding element comprises steel or tantalum or titan or PEEK.

21. The microfluidic connection of claim 1, wherein the carrier element comprises polyimide or PEEK.

22. The microfluidic connection of claim 1, wherein a thickness of the carrier element is in the range of 100 µm to 1000µm.

23. The microfluidic connection of claim 1, wherein a thickness of the carrier element is approximately 300 µm.

24. The microfluidic connection of claim 1, wherein a thickness of the microfluidic channel is in the range of 10µm to 100µm.

25. The microfluidic connection of claim 1, wherein a thickness of the microfluidic channel is approximately 50µm.

26. The microfluidic connection of claim 1,
wherein the carrier element comprises at least three different layers structured to form at least two separated microfluidic channel.

27. The microfluidic connection of claim 6, wherein the opening of the carrier element comprises a radius of smaller than 500 µm.

28. The microfluidic connection of claim 6, wherein the opening of the

carrier element comprises a diameter in the range of 50µm to 200µm.

29. The microfluidic connection of claim 1, wherein the microfluidic connection is adopted for withstanding fluid feeding pressures up to 400000 hPa.

30. The microfluidic connection of claim 1, wherein the feeding element comprises an outlet area arranged next to the macrofluidic channel.

31. The microfluidic connection of claim 1, wherein the carrier element comprises a second channel connected to an outlet area and separated from the microfluidic channel by a valve.

32. The microfluidic connection of claim 33, wherein the second channel of the carrier element is connected by an opening to a second macrofluidic channel of the feeding element.

33. The microfluidic connection of claim 33, wherein the valve is adopted for automatically opening at high pressures, thus providing protection to the subsequent fluidic components.